APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/063,289	04/21/1998	REJEAN GAGNE	T8463785US	4185

26643   7590   06/14/2002

PETER J. GORDON, PATENT COUNSEL
AVID TECHNOLOGY, INC.
ONE PARK WEST
TEWKSBURY, MA 01876

EXAMINER
BASHORE, WILLIAM L

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 06/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

-- Th MAILING DATE of this communication appears on the cov r sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 April 2002_ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-11_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-11_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

DETAILED ACTION

1.   This action is in response to communications: Amendment/Request for Reconsideration

(hereinafter the Request) filed 4/3/2002 to the original application filed **4/21/1998**, IDS filed 12/20/1999.

2.   Claims 1-11 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Boezeman

and Hamakawa.

3.   Claims 1-11 are pending. Claims 1, 4, 11 are independent claims.

Claim Rejections - 35 USC § 103

4.   **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness**

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of
> this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as
> a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boezeman et al.**

(hereinafter Boezeman), U.S. Patent No. 5,889,514 filed 3/29/1996 and issued 3/30/1999, in view of

Hamakawa et al. (Hereinafter Hamakawa), Object composition and playback models for handling

multimedia data, ACM Proceedings of the conference on Multimedia '93, August 2-6, 1993, pp.273-

281.

In regard to independent claim 1, Boezeman teaches:

- time based data of at least two differing data types (Boezeman Figure 7 items "Animation",

AudioPlay", "VideoPlay"; compare with claim 1 preamble *"A method for accessing....comprising the*

steps of").

- selecting and positioning a first clip object representing a first selected time-based data source, with respect to a relative time line, said clips are of differing types (Boezeman, Figure 10 item 124, column 8 lines 15-20; compare with claim 1 *"selecting a first time-based data source comprising a first data type from a selection of available data sources"*, and *"positioning a first clip object....for accessing the first time-based data source"*).

- selecting and positioning a second data-clip, comprising a different data type as compared to said first selected time-based data source (Boezeman, Figure 10 item 140, column 8 lines 15-20; compare with claim 1 *"selecting a second time-based data source....a different data type than the first time-based data source"*, and *"positioning a second clip object....for accessing the second time-based data source"*).

- one or more source clips and spacers positioned in an editable graphical object utilizing start and duration times (rT and aT), said positioning relative both to each other (rT), as well as to a global time line (aT) (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25; compare with claim 1 *"creating at least one meta-clip object representing....distinct from the local time line"*). - Boezeman does not specifically teach said objects re-mapped to a global time line subsequent to repositioning of a meta-object. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own relative time line, temporally re-mapped with respect to a global time line in a box, utilizing "temporal glue" recalculation (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. Also see p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 1 *"such that the start time and duration of each of said....relative to the global time line"*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of automatic temporal re-mapping of time lines within groupings (meta-clips) of multimedia objects, providing increased convenience (due to the elimination for precise time line locations), to Boezeman's NLE editor (Hamakawa p.277 column 2, near bottom).

- clip data which can be selected and used as needed (Boezeman Figure 2). Boezeman does not

specifically teach incorporation of a meta-clip to a list of available resources. However, Hamakawa

teaches a method incorporating a group of multimedia objects (Hamakawa p.275 Figure 4; compare with

claim 1 "*adding the at least one meta-clip object to said list of available data sources*"). It would have

been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to

Boezeman, because of Hamakawa's taught advantage of hierarchically categorized composite objects,

providing an increased number of object groupings to be used by Boezeman's NLE system.

In regard to dependent claim 2, Boezeman does not specifically teach a method of

incorporating a meta-clip object in cooperation with other objects, whereby said objects within a meta-

clip object are mapped to said meta-clip object, and in turn, mapped to a global time line. However,

Hamakawa teaches an object composition model comprising multimedia objects, each with its own

relative time line, temporally re-mapped with respect to a global time line in a box, utilizing "temporal

glue" recalculation (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue,

Object hierarchy, relative location. See also p.274 column 2, section Box, and p.275 Figure 4 (Box

Example); compare with claim 2). In addition, Hamakawa incorporates said composite objects within

other composite objects in the form of a composite hierarchy, whereby all relative time lines are re-

calculated as needed (Hamakawa p.274 Figure 3). It would have been obvious to one of ordinary skill in

the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught

advantage of hierarchical temporal re-mapping of time lines within groupings of multimedia composite

objects, providing increased convenience (due to the elimination for precise time line locations -

Hamakawa p.277 column 2, near bottom) to Boezeman's NLE method.

In regard to dependent claim 3, Boezeman teaches incorporating effects such as play spacers,

hide spacers, and move spacers, which can be positioned and manipulated within the invention as taught

by Boezeman (Boezeman column 2 lines 49-53; compare with claim 3). Claim 3 would have been

obvious to one of ordinary skill in the art at the time of the invention, in view of Boezeman, because of

Boezeman's taught advantage of editable spacer effects, which in turn are examples of special effects

applied to media editing systems (NLE) as taught by Boezeman.

In regard to independent claim 4, Boezeman teaches:

- teaches positioning of a first clip object representing a first selected time-based data source, with

respect to a time line, incorporating a start/duration time (Boezeman, Figure 10 items 124, 140, column 8

lines 15-20; compare with claim 4 *"creating at least one meta-clip object"*, and 4 *"a first clip object*

representing a first time based data source selected from a list of available data sources, and a second

clip object representing a second time based data source selected from the list of available data

sources").

- selection and positioning of a second data-clip, comprising a different data type as compared to

said first selected time-based data source, and with start/stop times (Boezeman, Figure 10 items 124, 140,

column 8 lines 15-20; compare with claim 4 *"the second data source being of a different data type than*

the first data source", and 4 *"a respective start time and duration "*).

- one or more source clips and spacers positioned in an editable graphical object utilizing start and

duration times (rT and aT), said positioning relative both to each other (rT), as well as to a global time

line (aT) (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25; compare with

claim 4 *"a respective local time line distinct from the global time line"*, and **4(I)** *"clip objects being*

positioned relative to the local time line").

- Boezeman does not specifically teach a method of incorporating at least one meta-clip to a list

of available resources. However, Hamakawa teaches a method incorporating a group of multimedia

objects (Hamakawa p.275 Figure 4; compare with claim 4 *"adding said at least one meta-clip object to*

the list of available data sources"). It would have been obvious to one of ordinary skill in the art at the

time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of

hierarchically categorized composite objects, providing an increased number of object type groupings to

be used by the NLE system as taught by Boezeman.

- one or more source clips are positioned in an editable graphical object utilizing relative start and

duration times, and with said positioning relative both to each other, as well as to an absolute time line

(Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25; compare with claim 4

"selecting at least one of the meta-clip objects from the list....the global time line").

- Boezeman does not specifically teach a method whereby said objects are positioned and re-

mapped to a global time line according to respective local time lines. However, Hamakawa teaches an

object composition model comprising multimedia objects, each with its own time line, temporally re-

mapped with respect to a global time line in a box, utilizing "temporal glue" recalculation (Hamakawa

p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location.

Also see p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 4 *"re-*

mapping to the global time line the start time....relative to the global time line"). It would have been

obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman,

because of Hamakawa's taught advantage of automatic temporal re-mapping of time lines within

groupings of multimedia objects, providing increased convenience (due to the elimination for precise time

line locations, (Hamakawa p.277 column 2, near bottom) to the NLE method as taught by Boezeman.

In regard to dependent claim 5, claim 5 incorporates substantially similar subject matter as

claimed in claim 2, and is rejected along the same rationale.

In regard to dependent claim 6, claim 6 incorporates substantially similar subject matter as

claimed in claim 3, and is rejected along the same rationale.

In regard to dependent claim 7, claim 7 incorporates substantially similar subject matter as claimed in claim 3, and in further view of the following, is rejected along the same rationale.

Boezeman teaches incorporation of spacer effects, which can be positioned and manipulated within an edit track (Boezeman column 2 lines 47-58). Hill does not specifically teach a method of incorporating said effects to at least one meta-clip object. However Hamakawa teaches a method of composite objects incorporating media clips with relative time lines (Hamakawa p.275 Figure 4; compare with claim 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of composite objects, providing an additional object type (including tracks) for the incorporation of effects, as taught by Boezeman.

In regard to dependent claim 8, Boezeman does not specifically teach the use of operator(s) to modify data from each time-based data source in a meta-clip. However, Hamakawa teaches a method of a composite object "Box", incorporating a conglomeration of different media object types along with relative time lines assigned per said type, with said Box incorporated as a composite object within a hierarchy of objects (Hamakawa p.274 Figure 3, and p.275 Figure 4; compare with claim 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the Hamakawa to Boezeman, because of Hamakawa's taught advantage of composite objects, providing a conglomeration of track types available for the incorporation of effects, as taught by Boezeman.

In regard to dependent claim 9, Boezeman teaches a method of play spacers, hide spacers, and rate spacers, whereby a clip is shortened or lengthened, hidden and played when necessary (Boezeman column 2 lines 47-58; compare with claim 9).

In regard to dependent claim 10, claim 10 is rejected using the Examiner's argument and rationale as set forth in the rejection of claim 9.

In regard to independent claim 11, Boezeman teaches:

- a non-linear editing system comprising time based data of at least two differing data types (Boezeman Figure 7 items "Animation", AudioPlay", "VideoPlay", also Abstract; compare with claim 11 "A non-linear editing system", and *"...time based data of at least two differing data types..."*).

- an internal hard drive, a CPU, a display screen, and an input device (Boezeman Figure 1; compare with claim 11 "a storage device...", *"a computer operatively connected..."*, *"at least one output device..."*, and *"at least one input device..."*).

- one or more source clips positioned in an editable graphical object utilizing relative start and duration times, with said positioning relative both to each other, as well as to an absolute time line (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25, compare with claim 11 *"a first object representing a first one of the stored data sources, a second object representing a second one"*, and claim 11 *"each comprising a respective local time line"*, and 11 *"clip objects being positioned relative to the local time line"*).).

- Boezeman does not specifically teach a method of incorporating a meta-clip object. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own relative time line (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. See also p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 11 *"creating with the computer at least one meta-clip object"*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of composite objects, providing a way to hierarchically organize groups of tracks within Boezeman's NLE editor.

- selecting and positioning a first clip object representing a first selected time-based data source, with respect to a relative time line, said clips are of differing types (Boezeman, Figure 10 item 124, column 8 lines 15-20; compare with claim 11 *"the second data source being of a different data type than the first data source"*, and 11 *"a respective start time and duration "*).

- one or more source clips positioned in an editable graphical object utilizing relative start and duration times, and with said positioning relative both to each other, as well as to an absolute time line (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25 ; compare with claim 11 *"selecting with the computer at least one of the meta-clip objects"*).

- Boezeman does not specifically teach a method of using an NLE object in cooperation with other objects, whereby said objects are positioned and re-mapped to a global time line according to respective local time lines. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own time line, temporally re-mapped with respect to a global time line in a box, utilizing "temporal glue" recalculation (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. Also see p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 11 *"define with the computer....and said global time line"*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to the method of Boezeman, because of Hamakawa's taught advantage of automatic temporal re-mapping of time lines within groupings of multimedia objects, providing increased convenience (due to the elimination for precise time line locations, (Hamakawa p.277 column 2, near bottom) to the NLE method as taught by Boezeman.

6.   **Prior art made of record and not relied upon is considered pertinent to disclosure.**

Snook   U.S. Patent No. 6,400,378   issued   06/2002

Macromind MediaMaker User's Guide, 1990 MacroMind, Inc., pp. 86-89, 92-98, 137-169.

Response to Arguments

7.   Applicant's arguments filed 4/3/2000 have been fully and carefully considered but they are not

persuasive.

        Applicant argues on page 4 of the Request that Hamakawa does not teach creating a meta clip

that includes first and second clips of different data types on a local time line, and of remapping from a

local time line to a global time line. The Examiner notes that the Object Hierarchy diagram (Hamakawa

Figure 3), reflects an object oriented paradigm. Thus, each "object" contains encapsulated data.

(Hamakawa Figure 4). Hamakawa's teaching of a *"time length of each object"* (Hamakawa p.274

column 1, under heading "Object hierarchy" (near bottom of page)), suggests a time line for each said

object (also exemplified via Hamakawa Figure 4 - t axis). The distinction between these time lines and a

global time line is reinforced by the hierarchy model. Each separate time line is determined when a higher

ranking object is determined. Therefore, each object's time line is not only related to other object's time

lines, but is also related by way of inheritance, to the time line of the highest ranking object (the root

object in Figure 3). Additional support can be found in Hamakawa p. 274 (at lower left column)

regarding attribute recalculation of all <u>related</u> composite objects according to the content of the

<u>hierarchical structure</u>, subsequent to a user editing a multimedia object.

        Applicant further argues on pages 4-5 of the Request that Hamakawa does not teach re-mapping

of time lines from a local time line to the global time line. The Examiner notes that even though

Hamakawa makes use of relative locations in time and space between objects to remap the objects to a

common global time line, separate time lines are still involved and are used (using inheritance) to

ultimately reflect dependancy upon a global time line, after re-mapping. In other words, each object's

time length is determined by first determining the highest ranking composite object (the root composite

object of Figure 3). All other related objects are recalculated according to the hierarchical structure

(Hamakawa p. 274 section "Object hierarchy").

Applicant argues on page 5 of the Request that the combination of Boezeman and Hamakawa would not be made by one of ordinary skill in the art. The Examiner notes that Boezeman's system teaches a time line based system. Hamakawa's reference to a time line system having drawbacks (i.e. Hamakawa p. 273 – bottom of first column, to top of second column) is referring to a traditional time line system. Hamakawa points out that there is no *"mechanism to ensure that the length of one media data will dynamically conform to the length another one"*, and that *"different media data are not automatically synchronized with one another"* (subsequent to user editing). Hamakawa's article proposes various solutions to these problems, the Examiner applies said solutions to Boezeman's time line editor.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bashore whose telephone number is **(703) 308-5807**. The examiner can normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Heather Herndon, can be reached on **(703) 308-5186.**

Any inquiry of a general nature or relating to the status of this application should be directed to

the Group receptionist whose telephone number is **(703) 305-3900.**

10.   **Any response to this action should be mailed to:**

> Commissioner of Patents and Trademarks
> Washington, D.C. 20231

or faxed to:

> **(703) 746-7239** (for formal communications intended for entry)
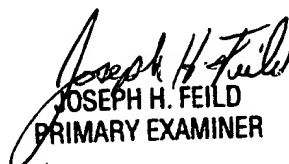
or:

> **(703) 746-7240** (for informal or draft communications, please label
> "PROPOSED" or "DRAFT")

or:

> **(703) 746-7238** (for after-final communications)

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Fourth Floor (Receptionist).**

William L. Bashore
06/09/2002

JOSEPH H. FEILD
PRIMARY EXAMINER